

***REMARKS***

The Examiner is thanked for the thorough examination of the present application. The Office Action mailed June 30, 2006 rejected claims 1-45 and 57-60. This is a full and timely response to that outstanding Office Action. Upon entry of the amendments in this response, claims 1-45 are pending. More specifically, claims 1 and 23-25 are amended and claims 57-60 are cancelled. Claims 57-60 are canceled without prejudice, waiver, or disclaimer. Applicant takes this action merely to reduce the number of issues and to facilitate early allowance and issuance of the present application. Applicant reserves the right to pursue the subject matter of these canceled claims in a continuing application, if applicant so chooses, and does not intend to dedicate any of the canceled subject matter to the public. These amendments are specifically described hereinafter.

**I. Present Status of Patent Application**

Claims 1-45 and 57-60 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by *Rakib* (U.S. Publication No. 2002/0019984). Claims 1-45 and 57-60 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Pierre, et al.* (U.S. Patent No. 6,678,463) and WO/92/22983. To the extent that these rejections have not been rendered moot by the cancellation of claims, they are respectfully traversed.

**II. Rejections Under 35 U.S.C. §102(e)****A. Claims 1-22**

The Office Action rejects claims 1-22 under 35 U.S.C. §102(e) as allegedly being anticipated by *Rakib* (U.S. Publication No. 2002/0019984). For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 1**, as amended, recites:

1. A file allocation method for a hard disk drive comprising the steps of:  
receiving a request to allocate hard disk space of a defined size for a buffer file;  
allocating clusters for the buffer file from a plurality of clusters on the hard disk,  
wherein the clusters for the buffer file store media content instances;  
designating a portion of the clusters of the buffer file for at least one non-buffer  
file such that the non-buffer file is permitted to simultaneously share the  
portion of the clusters with the buffer file; and  
***limiting the buffer file to a substantially constant buffer file size, such that  
when the buffer file approaches a full status, the cluster storing the  
oldest media content is first deallocated from the buffer file and a new  
cluster is correspondingly allocated to the buffer file.***

(Emphasis added).

Applicant respectfully submits that claim 1 patently defines over the cited art for at least the reason that the cited art does not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §102, the cited reference must disclose, teach, or suggest all elements/features/steps of the claim at issue. *See, e.g., E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 7 U.S.P.Q.2d 1129 (Fed. Cir. 1988).

Applicant respectfully submits that independent claim 1 as amended is allowable for at least the reason that *Rakib* does not disclose, teach, or suggest at least the feature of **limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.**

Therefore, *Rakib* does not anticipate independent claim 1, and the rejection should be withdrawn.

Because independent claim 1 as amended is allowable over the cited references of record, dependent claims 2-22 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that dependent claims 2-22 contain all the steps/features of independent claim 1. *See Minnesota Mining and Manufacturing Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002) *Jeneric/Pentron, Inc. v. Dillon Co.*, 205 F.3d 1377, 54 U.S.P.Q.2d 1086 (Fed.

Cir. 2000); *Wahpeton Canvas Co. v. Frontier Inc.*, 870 F.2d 1546, 10 U.S.P.Q.2d 1201 (Fed. Cir. 1989). Therefore, since dependent claims 2-22 are patentable over *Rakib*, the rejection to claims 2-22 should be withdrawn and the claims allowed.

Additionally and notwithstanding the foregoing reasons for allowability of independent claim 1, dependent claims 2-22 recite further features and/or combinations of features, as are apparent by examination of the claims themselves, that are patently distinct from the cited references of record. Hence, there are other reasons why dependent claims 2-22 are allowable.

B. Claim 23

The Office Action rejects claim 23 under 35 U.S.C. §102(e) as allegedly being anticipated by *Rakib* (U.S. Publication No. 2002/0019984). For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 23**, as amended, recites:

23. A file allocation method for a hard disk drive comprising the steps of:
- receiving a request to allocate hard disk space of a defined size for a buffer file;
  - allocating clusters for the buffer file from a plurality of clusters on the hard disk,
    - wherein the clusters for the buffer file store media content instances;
  - designating a portion of the clusters of the buffer file for at least one non-buffer file such that the buffer file is permitted to simultaneously share the
    - portion of the clusters with the non-buffer file;
  - using the non-buffer file clusters for permanent recordings;
  - maintaining a file sharing count for the clusters of the buffer file, such that the
    - clusters with the file sharing count greater than one are removed from the buffer file;
  - removing from the buffer file the portion of the clusters that are shared by the
    - buffer file and the non-buffer file and designating said previously shared portion as a portion of non-buffer file clusters;

replacing the portion of the clusters that were removed from the buffer file with replacement clusters in order to maintain the defined size of the disk space for the buffer file as substantially constant; and

***limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.***

(Emphasis added).

Applicant respectfully submits that claim 23 patently defines over the cited art for at least the reason that the cited art does not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §102, the cited reference must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 23 as amended is allowable for at least the reason that *Rakib* does not disclose, teach, or suggest at least the feature of **limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.**

Therefore, *Rakib* does not anticipate independent claim 23, and the rejection should be withdrawn.

C. Claim 24

The Office Action rejects claim 24 under 35 U.S.C. §102(e) as allegedly being anticipated by *Rakib* (U.S. Publication No. 2002/0019984). For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 24**, as amended, recites:

24. A file allocation system for a hard disk drive comprising:

a memory with driver logic; and

a processor configured with the driver logic to receive a request to allocate hard

disk space of a defined size for a buffer file, wherein the processor is

further configured with the driver logic to allocate clusters for the buffer

file from a plurality of clusters on the hard disk, wherein the clusters for

the buffer file store media content instances, wherein the processor is

further configured with the driver logic to designate a portion of the

clusters of the buffer file for at least one non-buffer file such that the

buffer file is permitted to simultaneously share the portion of the clusters

with the non-buffer file, wherein the processor is further configured with

the driver logic to use the non-buffer file clusters for permanent

recordings, wherein the processor is further configured with the driver

logic to maintain a file sharing count for the clusters of the buffer file,

such that the clusters with the file sharing count greater than one are

removed from the buffer file, wherein the processor is further configured

with the driver logic to remove from the buffer file the portion of the

clusters that are shared by the buffer file and the non-buffer file and

designating said previously shared portion as a portion of non-buffer file

clusters, wherein the processor is further configured with the driver logic

to replace the portion of the clusters that were removed from the buffer file

with replacement clusters in order to maintain the defined size of the disk

space for the buffer file as substantially constant;

*wherein the processor is further configured to limit the buffer file to a*

*substantially constant buffer file size, such that when the buffer file*

*approaches a full status, the cluster storing the oldest media content is*

*first deallocated from the buffer file and a new cluster is*

*correspondingly allocated to the buffer file.*

(Emphasis added).

Applicant respectfully submits that claim 24 patently defines over the cited art for at least the reason that the cited art does not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §102, the cited reference must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 24 as amended is allowable for at least the reason that *Rakib* does not disclose, teach, or suggest at least the feature of a processor, **wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.** Therefore, *Rakib* does not anticipate independent claim 24, and the rejection should be withdrawn.

D. Claims 25-45

The Office Action rejects claims 25-45 under 35 U.S.C. §102(e) as allegedly being anticipated by *Rakib* (U.S. Publication No. 2002/0019984). For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 25**, as amended, recites:

25. A file allocation system for a hard disk drive comprising:
- a memory with driver logic; and
  - a processor configured with the driver logic to receive a request to allocate hard disk space of a defined size for a buffer file, wherein the processor is further configured with the driver logic to allocate clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances, wherein the processor is further configured with the driver logic to designate a portion of the clusters of the buffer file for at least one non-buffer file such that the non-

buffer file is permitted to simultaneously share the portion of the clusters of the buffer file with the buffer file;

***wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.***

(Emphasis added).

Applicant respectfully submits that claim 25 patently defines over the cited art for at least the reason that the cited art does not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §102, the cited reference must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 25 as amended is allowable for at least the reason that *Rakib* does not disclose, teach, or suggest at least the feature of a processor, **wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.** Therefore, *Rakib* does not anticipate independent claim 25, and the rejection should be withdrawn.

Because independent claim 25 as amended is allowable over the cited references of record, dependent claims 26-45 (which depend from independent claim 25) are allowable as a matter of law for at least the reason that dependent claims 26-45 contain all the steps/features of independent claim 25. Therefore, since dependent claims 26-45 are patentable over *Rakib*, the rejection to claims 26-45 should be withdrawn and the claims allowed.

Additionally and notwithstanding the foregoing reasons for allowability of independent claim 25, dependent claims 26-45 recite further features and/or combinations of features, as are apparent by examination of the claims themselves, that are patently distinct from the cited references of record. Hence, there are other reasons why dependent claims 26-45 are allowable.

#### IV. Rejections Under 35 U.S.C. §103(a)

##### A. Claims 1-22

The Office Action rejects claims 1-22 under 35 U.S.C. §103(a) as allegedly being unpatentable over the proposed combination of *Pierre, et al.* (U.S. Patent No. 6,678,463) and WO/92/22983. For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 1**, as amended, recites:

1. A file allocation method for a hard disk drive comprising the steps of:  
receiving a request to allocate hard disk space of a defined size for a buffer file;  
allocating clusters for the buffer file from a plurality of clusters on the hard disk,  
wherein the clusters for the buffer file store media content instances;  
designating a portion of the clusters of the buffer file for at least one non-buffer  
file such that the non-buffer file is permitted to simultaneously share the  
portion of the clusters with the buffer file; and  
***limiting the buffer file to a substantially constant buffer file size, such that  
when the buffer file approaches a full status, the cluster storing the  
oldest media content is first deallocated from the buffer file and a new  
cluster is correspondingly allocated to the buffer file.***

(Emphasis added).

Applicant respectfully submits that claim 1 patently defines over the references of record for at least the reason that the references of record do not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 1 is allowable for at least the reason that the combination of *Pierre* and WO/92/22983 does not disclose, teach, or suggest at least the feature of **limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media**



**content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.**

As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 1, the rejection should be withdrawn. Additionally and notwithstanding the analysis hereinabove, there are other reasons why claim 1 is allowable.

Because independent claim 1 is allowable over the cited references of record, dependent claims 2-22 (which depend from independent claim 1) are allowable as a matter of law for at least the reason that dependent claims 2-22 contain all the steps/features of independent claim 1. Therefore, the rejection to claims 2-22 should be withdrawn and the claims allowed.

Additionally and notwithstanding the foregoing reasons for allowability of independent claim 1, dependent claims 2-22 recite further features and/or combinations of features, as are apparent by examination of the claims themselves, that are patently distinct from the cited references of record. Hence, there are other reasons why dependent claims 2-22 are allowable.

B. Claim 23

The Office Action rejects claim 23 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Pierre, et al.* (U.S. Patent No. 6,678,463) and WO/92/22983. For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 23**, as amended, recites:

23. A file allocation method for a hard disk drive comprising the steps of:
- receiving a request to allocate hard disk space of a defined size for a buffer file;
  - allocating clusters for the buffer file from a plurality of clusters on the hard disk,
    - wherein the clusters for the buffer file store media content instances;
  - designating a portion of the clusters of the buffer file for at least one non-buffer file such that the buffer file is permitted to simultaneously share the
    - portion of the clusters with the non-buffer file;
  - using the non-buffer file clusters for permanent recordings;

maintaining a file sharing count for the clusters of the buffer file, such that the clusters with the file sharing count greater than one are removed from the buffer file;

removing from the buffer file the portion of the clusters that are shared by the buffer file and the non-buffer file and designating said previously shared portion as a portion of non-buffer file clusters;

replacing the portion of the clusters that were removed from the buffer file with replacement clusters in order to maintain the defined size of the disk space for the buffer file as substantially constant; and

***limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.***

(Emphasis added).

Applicant respectfully submits that claim 23 patently defines over the references of record for at least the reason that the references of record do not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 23 is allowable for at least the reason that the combination of *Pierre* and WO/92/22983 does not disclose, teach, or suggest at least the feature of **limiting the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.**

As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 23, the rejection should be withdrawn. Additionally and notwithstanding the analysis hereinabove, there are other reasons why claim 23 is allowable.

C. Claim 24

The Office Action rejects claim 24 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Pierre, et al.* (U.S. Patent No. 6,678,463) and WO/92/22983. For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 24**, as amended, recites:

24. A file allocation system for a hard disk drive comprising:
- a memory with driver logic; and
  - a processor configured with the driver logic to receive a request to allocate hard disk space of a defined size for a buffer file, wherein the processor is further configured with the driver logic to allocate clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances, wherein the processor is further configured with the driver logic to designate a portion of the clusters of the buffer file for at least one non-buffer file such that the buffer file is permitted to simultaneously share the portion of the clusters with the non-buffer file, wherein the processor is further configured with the driver logic to use the non-buffer file clusters for permanent recordings, wherein the processor is further configured with the driver logic to maintain a file sharing count for the clusters of the buffer file, such that the clusters with the file sharing count greater than one are removed from the buffer file, wherein the processor is further configured with the driver logic to remove from the buffer file the portion of the clusters that are shared by the buffer file and the non-buffer file and designating said previously shared portion as a portion of non-buffer file clusters, wherein the processor is further configured with the driver logic to replace the portion of the clusters that were removed from the buffer file with replacement clusters in order to maintain the defined size of the disk space for the buffer file as substantially constant;

*wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.*

(Emphasis added).

Applicant respectfully submits that claim 24 patently defines over the references of record for at least the reason that the references of record do not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 24 is allowable for at least the reason that the combination of *Pierre* and WO/92/22983 does not disclose, teach, or suggest at least the feature of a processor, **wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.**

As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 24, the rejection should be withdrawn. Additionally and notwithstanding the analysis hereinabove, there are other reasons why claim 24 is allowable.

D. Claims 25-45

The Office Action rejects claims 25-45 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Pierre, et al.* (U.S. Patent No. 6,678,463) and WO/92/22983. For at least the reasons set forth below, Applicant respectfully traverses the rejection.

**Independent claim 25**, as amended, recites:

25. A file allocation system for a hard disk drive comprising:  
a memory with driver logic; and  
a processor configured with the driver logic to receive a request to allocate hard disk space of a defined size for a buffer file, wherein the processor is further configured with the driver logic to allocate clusters for the buffer file from a plurality of clusters on the hard disk, wherein the clusters for the buffer file store media content instances, wherein the processor is further configured with the driver logic to designate a portion of the clusters of the buffer file for at least one non-buffer file such that the non-buffer file is permitted to simultaneously share the portion of the clusters of the buffer file with the buffer file;

*wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.*

(Emphasis added).

Applicant respectfully submits that claim 25 patently defines over the references of record for at least the reason that the references of record do not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements/features/steps of the claim at issue.

Applicant respectfully submits that independent claim 25 is allowable for at least the reason that the combination of *Pierre* and WO/92/22983 does not disclose, teach, or suggest at least the feature of a processor, **wherein the processor is further configured to limit the buffer file to a substantially constant buffer file size, such that when the buffer file approaches a full status, the cluster storing the oldest media content is first deallocated from the buffer file and a new cluster is correspondingly allocated to the buffer file.**

As the cited combination of references does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 25, the rejection should be withdrawn. Additionally and notwithstanding the analysis hereinabove, there are other reasons why claim 25 is allowable.

Because independent claim 25 is allowable over the cited references of record, dependent claims 26-45 (which depend from independent claim 25) are allowable as a matter of law for at least the reason that dependent claims 26-45 contain all the steps/features of independent claim 25. Therefore, the rejection to claims 26-45 should be withdrawn and the claims allowed.

Additionally and notwithstanding the foregoing reasons for allowability of independent claim 25, dependent claims 26-45 recite further features and/or combinations of features, as are apparent by examination of the claims themselves, that are patently distinct from the cited references of record. Hence, there are other reasons why dependent claims 26-45 are allowable.


#### **V. Miscellaneous Issues**

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, or statements interpreted similarly, should not be considered well known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1-45 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

  
Benjamin A. Balser, Reg. No. 58,169

**THOMAS, KAYDEN,  
HORSTEMEYER & RISLEY, L.L.P.**  
Suite 1750  
100 Galleria Parkway N.W.  
Atlanta, Georgia 30339  
(770) 933-9500